

Application No. 09/761,493

Remarks

The Office Action of March 11, 2004 allowed claims 11-15 and merely objected to claims 5-9, 18, and 19. The Office Action stated that claims 5-9, 18, and 19 would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

Applicants have rewritten claim 5 to incorporate the limitations of prior independent claim 1 and intervening claims 2 and 3. Claim 6-9 depend, either directly, or indirectly, from claim 5. Applicants have rewritten claim 18 in independent form, including all of the limitations of the prior independent claim 16 and intervening claim 17. Applicants have also rewritten claim 19 in independent form to incorporate all of the limitations of prior independent claim 16.

The Office Action rejected claims 1-4, 10, 16 and 17 under 35 U.S.C. §103(a), citing various combinations of U.S. Patent Number 5,194,725 to Sawase et al., U.S. Patent Number 6,166,832 to Fujimoto, U.S. Patent Number 5,517,332 to Barry et al., and applicants acknowledged prior art.

The image module of amended independent claim 1 specifies that the imaging sensor array is directed for receiving an image from a first direction, and that the array biased element urges the imaging sensor array in a second direction, different from the first direction, against the datum element. The structure of applicants' image module permits exceptional accuracy in the positioning of the imaging sensor array. The embodiment shown in Figure 1 of the Sawase et al. reference includes a gap between the edge of the cavity 123 and the edge of the substrate 103, leaving open the possibility of imprecise lateral positioning of the substrate 103. The embodiment shown in Figure 2 of the Sawase et al. reference does include a positioning pin 211a that fits into a hole 231 formed in the substrate 203 to aide in positioning the sensor substrate. Applicants' claimed image module

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provides accurate lateral positioning of the image sensor array in a simple manner that does not require an operator to align positioning pins with small holes.

The method of assembling a document scanner defined in claim 16 includes placing an image sensor array on the support surface of the housing so that the imaging sensor array is oriented to receive images from a first direction, and urging the imaging sensor array in a second direction, different from the first direction, against the datum element of the housing. This method provides for accurate positioning of the imaging sensor array in a lateral direction, without the need to carefully align alignment pins and holes, thereby making assembling the document scanner simpler.

In view of the rewritten form of claims 5, 18, and 19, applicants submit that previously objected to claims 5-9, 18, and 19 are now allowable, in addition to previously allowed claims 11-15.

Applicants respectfully submit that claims 1-4, 10, 16, and 17 define applicants' invention so as to be patentably distinctly from the cited art.

Applicants have added new dependent claim 20 to further specify the directional orientation of the elements of the image module.

Applicants have added new claim 21 to further specify the directional elements of the method of claim 16.

Applicants therefore respectfully request allowance of claims 1-21.

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If the Examiner considers personal contact helpful to dispose of this case, call David J. Arthur, at Telephone Number (585) 423-9215, Rochester, New York.

Respectfully submitted,



David J. Arthur
Attorney for Applicant(s)
Registration No. 30,707
(585) 423-9215

DJA/cw

Xerox Corporation
Xerox Square 20A
Rochester, New York 14644